

REMARKS:

In the foregoing amendments, previously presented claims 1-8 were canceled and replaced with new claims 9-14. The new claims include the same subject matter as the previously presented claims. New claim 9 is a combination of original claims 1 and 3. In addition, the lower limit for phosphorus was changed from "0.01" to -- 0.05 -- in new claim 9. This amended lower limit for phosphorus can be found in example 3 of table 1 of page 11 of applicant's specification disclosure. Accordingly, claims 9-14 are in the application for consideration by the examiner at this time.

The Official action set forth a single rejection of claims 1-8 under 35 U.S.C. § 103(a) as being unpatentable over any one of Japanese patent document Nos. 4112799698, 9-310146, 401176055, or 403183739 (respectively, Japanese '698, Japanese '146, Japanese '055, and Japanese '739). The Official action noted specific portions of each of these teachings as follows:

Japanese '698	Examples on page 4,
Japanese '055	Table 1 on page 344,
Japanese '146	Table on page 6, and
Japanese '739	Table 1 on pages 225 and 226

Applicant respectfully submits that the teachings of Japanese '698, Japanese '146, Japanese '055, and/or Japanese '739 do not disclose or suggest the invention in claims 9-14 within the meaning of 35 U.S.C. § 103(a).

The teachings of Japanese '698 explain that in the prior art notch or notches were made in the products by machining. On the other hand, in the presently claimed invention the notch or notches are provided by processing by "a thermal source selected from the group consisting of laser, electron beam, plasma arc, TIG and equivalents thereof ." The presently claimed invention provides a product having notch or notches made from an easily fracturing material that can be fractured more easily and more accurately than those in the prior art. This structure of applicant's claims of providing the notch or notches as the starting points of fracture by a thermal source has advantages over the known process by machining, because, as described in page 10, lines 5 to 9 of the specification, "the heat-effected zones at the bottom of the notches are brittle and easy to split, and thus, fracture proceeds satisfactorily."

Concerning Japanese '146 and Japanese '739, the alloys noted in the Official action do not contain phosphorus, which is an important alloy component for the presently claimed invention. Since phosphorus is normally considered an impurity, applicant respectfully submits that it would not have been obvious for one of ordinary skill in the art to add it to the alloys of these teachings in the amount required in the present claims.

In addition, it is respectfully noted that while the teachings of Japanese '146 are concerned with rods, there is absolutely no discussion in these teachings concerning splitting by fracture from notch or notches processed by a thermal source, as presently claimed.

The teachings of Japanese '055 proposed an alloy containing phosphor in an amount of 0.03% at highest. The alloy of the presently claimed invention contains at least 0.05% phosphor. Thus, the alloy compositions are different and one cannot suggest the other. In addition, Japanese '055 does not contemplate or suggest art the preparation of machine parts, such as connecting rods, by fracture splitting.

With respect to the teachings of Japanese '739, it may be possible that phosphor is contained in the alloy in an amount of impurity. In contrast thereto, the alloy of the present invention positively contains phosphor of 0.05-0.15%, which is much more than the amount of an impurity. Therefore, the teachings of Japanese '739 can contemplate or suggest the presently claimed invention. Further, the only discussion concerning production of machine parts mentioned in Japanese '739 has to do with "knuckle spindle", and there is no teaching on the splitting by fracture in order to obtain machine parts. Therefore, the teachings of Japanese '739 cannot contemplate or suggest the structure of applicant's claimed invention.

Since the teachings cited against applicant's claims do not exactly teach the composition of applicant's claims, the formula or equation set forth in applicant's claims must be considered when considering the obviousness of the presently claimed invention. Since the formula in applicant's claims is not suggested in the teachings cited in the outstanding Office action, the claimed invention is distinguishable from these teachings.


For the foregoing reasons, applicant respectfully submits that the presently claimed invention is distinguishable from the teachings of Japanese '698, Japanese '146, Japanese '055, and/or Japanese '739 within the meaning of 35 U.S.C. § 103(a). Therefore, applicant respectfully requests that the examiner reconsidered and withdraw this rejection.

Based on the foregoing amendments and remarks, favorable consideration and allowance of claims 9-14 are respectfully requested.

While it is believed that the foregoing is a complete and proper response to the Official action mailed July 25, 2003, in the event the examiner has any comments or questions, it is respectfully requested that the undersigned be telephoned at the below listed number to resolve any outstanding issues.

In the event this paper is not timely filed, applicant hereby petitions for an appropriate extension of time. The fee therefor, as well as any other fees which become due, may be charged or credited to our deposit account No. 22-0256.

Respectfully submitted,
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